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The Role of Online Shopping Service Quality in e-Retailing towards Online Shopping Intention: Testing the moderation mechanism in UTAUT

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Abstract

The purpose of this research study is to examine the influence of online shopping service quality on online shopping intention with the mediating role of online shopping drivers and the moderating role of offline brand trust. The authors collected the data from 167 university students across Pakistan. Structural equation modeling was used to analysis the data using AMOS. The results confirmed that online shopping service quality promotes online shopping intention, while online shopping drivers mediated the effect of online service quality on online shopping intention (the major contributions of the current study in the literature of online shopping intention). Furthermore, the results did not support the moderating role of offline brand trust on the relationship between online shopping drivers and online shopping intention. The authors took guidance from unified theory of acceptance and use of technology to explain the relationships among the constructs. The implications are further discussed at the end.

Keywords: online shopping service quality; online shopping drivers; offline brand, e-retailing, trust; UTAUT, online shopping Intention

1. Introduction

In Pakistan electronic commerce is growing significantly (Ghaznavi, 2013). An enormous growth has occurred in last few years. Currently, more than a hundred websites for online shopping are operating in Pakistan. This accumulative prominence has created an interest among the researchers and area experts to discover the customer's intention mechanism of e-shopping. This upsurge in the popularity of online shopping is due to some common factors e.g. rapid access, time convenience and availability of wide variety of products and convenient mode of payment (Tandon et al., 2016). As Online shopping is prompt,

convenient and provides lower costs for decision making (Park & Hill, 2018), a significant proportion of purchases are made through online stores. Trends of online shopping have observed an exceptional growth across the world. In 2015, the approximate global e-commerce retail sales were USD 1.67 trillion. The Asia-Pacific contributed more than 50% in this figure. The expected sales growth for Asia-Pacific is USD 2.36 trillion for 2019 (eMarketer, 2015).

Different models and theories are used to explain the users/customers technology related behavior. Venkatesh et al. (2003) compared significant models after a thorough literature review and devised UTAUT (Unified Theory of Acceptance and Use of Technology). UTAUT has been empirically tested and proven as a superior to other models/theories (Venkatesh et al. 2003, Zhou, 2012) to explain the user‘s technology related behavior. The authors of this theory have also suggested that this theory should be tested in the context of different technologies and particularly proposed to test it for e-commerce applications (Venkatesh et al., 2003). Following this direction, Venkatesh et al. (2012) described the consumer use context of mobile internet technology and develop UTAUT2, an extension of original UTAUT with an addition of some new variables (Hedonic Motivation, Price Value and Habit) in the frame work. Similarly, Venkatesh et al. (2016) emphasized on the need of UTAUT extensions for the acceptance and usage of technology and also proposed further to analyze the contributions of UTAUT in the existing literature. They suggested an extension in the original model with new exogenous variable, endogenous variable, moderating variable, or new outcome variables.

In line with these suggestions, this research has addressed this gap by adding new exogenous i.e. Online Shopping Service Quality and moderation (Offline Brand Trust) mechanisms to develop a new frame work in the context of technology (online shopping usage. The Performance Expectancy and Efforts Expectancy are core drivers in UTAUT theory. According to the UTAUT, expectancy in term of performance and effort are the core determining factors for any kind of technology usage (Venkatesh et al., 2003). The Performance Expectancy (PE) is the extent to which an individual (customer) believes that technology (online shopping) will increase his/her performance (Lian & Yen, 2014). Whereas, Effort Expectancy (EE) is an individual’s (customer) evaluation of the extent to which he/she thinks that use of technology i.e. online shopping does not require much effort (Venkatesh et al., 2003). Hansen (2006) pointed out that the key motivation for the customers to indulge in online shopping is convenience and effort free transaction (physical and mental). Moreover, the PE and EE can also be the source to mediate relationship among e-shopping service quality and intention. In online shopping perspective, EE determines the degree to which people perceive that online websites would facilitate the shoppers with lesser effort compared to the conventional purchase transaction. Apart from this, using online shopping also increases the customer’s performance expectations such as time saving and availability of products online which may not be available with the local retailers. PE has an impact on intention (Lian & Yen, 2014). Similarly, due to convenience and effort free motivation, EE is also a major driver of online shopping intention (OSI). The rapid advancement in e-commerce has motivated the researchers to examine the online shopping drivers (OSD) which persuade the

customers to shop online (Clemes et al., 2014). However, in addition to this, there can also be some other external factors (exogenous variables) like online shopping service quality (OSSQ) which envisages these drivers (endogenous variables i.e. performance expectancy and efforts expectancy) as Neufeld et al. (2007) found that charismatic leadership is a stronger predictor of endogenous variables in context of user acceptance of information technology. Therefore, the OSSQ has been taken as a exogenous variable in this research.

Throughout the last decade, fast evolution of e-commerce/e-shopping has established wide scholarly attention towards e-service quality (Turk et al., 2012; Kim et al., 2011). Superior service quality has been found out to be vital for the long term success of the retailers (Zeithaml et al., 2002; Fassnacht & Koese, 2006). The online retailing services quality provided by online retailers, fascinate the customers and hence become a great source of value addition for a virtual retailing experience (Homburg, Hoyer & Fassnacht, 2002). Inversely, ineffective e-services may result in billions of sales losses per annum (Datamonitor, 2000). Furthermore, online customers may lose their faith and their willingness to buy from online sources decreases (Bettua, 1999). The significance of the consumer insight about online service quality has been highlighted in a number of studies (Cheng et al., 2008; Gounaris et al., 2005; Janda et al., 2002; Cai & Jun, 2003; Lee & Lin, 2005; Jun et al., 2004; Yang & Jun, 2002; Yoo & Donthu, 2001) and the ways in which the service quality impacts the customer (Wolfinbarger & Gilly, 2003). There is an intense competition among online sellers which urge the need to provide excellent service quality to be competitive. Quality of services is important in e-commerce industry for increasing the online channel use for e-shopping (Devaraj et al., 2002), to meet the customers required service expectations. So, there is a need to explore the impact of OSSQ on online shopping drivers and online shopping intention. Therefore, this is very useful research, addressing these issues.

In addition to the OSSQ, trust factor in online purchases is also critical because the consumers are unaware about the vendors offering online product, which may bring doubtfulness in the minds of the consumers. McKnight et al. (2002) explained that consumer trust is deemed as the most essential element in the online transactions since it helps the consumers to handle the uncertainties that exist in online shopping environment, as the online consumer is unable to touch or try the product he/she intends to purchase (Lee & Turban, 2001; Salo & Karjaluoto, 2007). Fortunately, another type of trust i.e. offline brand trust can be developed in the minds of the customer which is created through the conventional purchase of the same brand from conventional stores. If a customers have good experience of products/services for online shopping, this trust will be useful for online purchasing of the same product/service. Rios and Riquelme (2008) pointed out that offline brand trust's role is very essential in e-businesses as compared to brick and mortar traditional stores because consumers can't use the physical and tangible features to gather the trust of its consumers. Subsequently, building intentional consumer trust becomes trickier in the online retailing than traditional shops. The offline brand trust was assumed as a potential moderator between the relationship of OSD and OSI. Therefore, this research is very beneficial which has explored the moderating relationship of Offline Brand Trust between OSD and OSI.

Therefore, this research study is very useful to explore the direct relationship of OSSQ on OSI as well as the mediating role of OSD between the OSSQ and OSI. Since, this relationship has not been explored yet. Moreover, we have also incorporated the Offline Brand Trust as moderator between OSD and OSI which has not been explored yet. This research has presented the theoretical as well as managerial contributions. The theoretical contribution relates to the extension in UTAUT by adding a new exogenous (OSSQ) construct and testing the moderation mechanism (OBT) in the theory for the first time. The empirical findings of this research are very helpful to the entrepreneurs, investors, marketers, e-retailers and IT experts to formulate policies, frameworks and marketing strategies that will enhance the penetration of online shopping and its effectiveness.

2. Literature Review

2.1 Online Shopping Service Quality (OSSQ) and Online Shopping Drivers (OSD).

Sar and Garg (2012) and Khan (2013) explored that online retailers use excellent e-service quality to maintain the current customer base and draw potential customers in this digital age. The retailers providing online buying recognized the importance of maintaining high quality of online portals. However, they remain unable to measure and comprehend the customer's perception of quality (Awan et al., 2012; Hirmukhe, 2013). Service Quality facilitates the customers such that they can view the products in different dimensions (three d views) online very easily. The customers' task performance is boosted with improved website quality and it enables user's efficiency, effectiveness and productivity (Perea-y-Monsuwe et al., 2004). This can only be possible if the e-retailer provide high service quality in an online environment. In this way, provision of a high online service quality is vital to form customer's expectations regarding online retailing performance.

With the availability of high quality online shopping services, customers can is easily navigate, save time and cognitive effort during online shopping process (Szymanski & Hise, 2000). Hence, online shopping increase the customer performance. Moreover, the online shopping environment helps the customers to reduce their efforts to purchase products available at e-stores, it assists in product information gathering and online product evaluation (Alba et al., 1997) to save the customers the hassle of visiting different stores in the conventional shopping. Through reliable service quality, an e-retailer can take keen interest to solve the customer's problems and make online shopping easy for them. Online transactions can be made easy and error free with the help of high service quality provision. Hence, in this context, following hypothesis can be offered:

- **H_{1a}:** OSSQ has a positive relation with PE in online shopping.
- **H_{1b}:** OSSQ has a positive relation with EE in online shopping.

2.2 Online Shopping Service Quality (OSSQ) and Online Shopping Intention (OSI)

Service quality increases the users' intention to purchase online (Lee & Lin, 2005). Online shoppers avoid complicated websites and interfaces that are hard to navigate due to poor level of service quality. This also leads to the decrease of customer's intention for online purchasing (Pearson et al., 2007). Customers' purchase intentions can be increased with the provision of high quality e-services. In contrast, e-retailers have to offer bonus

product value, augment customer loyalty, and adhere to customer's needs and wants (Jie et al., 2015). However, instead of giving all such benefits the customer's intention can be increase with the help of improved version of online service quality for shopping. So, OSSQ is important for eliciting positive online purchase intentions in the mind of customers. Hence, it can hypothesize as follows:

- **H_2:** OSSQ has a positive relation with OSI.

2.3 Online Shopping Drivers (OSD) and Online Shopping Intention (OSI)

In online shopping environment customers perceive that a higher economic benefit will subsequently enhance his intention to shop online. Therefore, expectations in term of performance, positively affects people's intent to use an online medium for buying product and services online (Renny & Siringoringo, 2013). According to Singh and Matsui (2017), performance has positively affect intention. Furthermore, studies have also established that perceived cognitive and behavioral efforts required for learning and utilizing IT artifacts have direct impact on the behavioral intention (Gefen, 2003; Venkatesh & Davis, 2000). Venkatesh et al. (2012) hence, found a positive influence of efforts expectancy on the behavioral intention. Perceived ease of use (an alternative of Performance Expectancy) and perceived usefulness (an alternative of Efforts Expectancy) have been taken in Theory of Reasoned Action not only to determine the consumer intention for technology adoption in general, but also to examine the consumers online purchase intentions (Honarbakhsh et al., 2013). Such previous researches support our proposed hypothesis. In online shopping context, EE determines the extent to which people perceive that online shopping medium will enable them to indulge in online purchasing with comparatively lesser efforts than the conventional retail stores. Apart from that, EE means the ease of steering through the website, retrieving the information, and placing an order for the products from the websites (Reibstein, 2002). In this context, Hansen (2006) stated that the energy convenience maximization that reduces his mental and physical exertion is the main driving force for the customer for choosing online shopping. So the following hypothesis can be posited:

- **H_{3a}:** PE has a positive relation with OSI.
- **H_{3b}:** EE has a positive relation with OSI.

2.4 The Moderating Role of Offline Brand Trust (OBT)

Several researches have validated that brand trust prominently determines brand commitment, brand loyalty and the customer purchase intention (Berry, 1995; Chaudhuri & Holbrook, 2001; Delgado-Ballester, 2004; Delgado-Ballester et al., 2003; Lau & Lee, 1999; Rios & Riquelme, 2008; Wang, 2002). Brand trust plays a very critical role in online businesses as compare to traditional offline stores because of their intangible nature (Rios & Riquelme, 2008). Brand trust, according Chaudhuri and Holbrook, (2001) is an assertive expectation of how reliable is a brand and its intentions. Offline Brand trust depends on two things i.e. brand reputation and brand predictability (Lau & Lee, 1999). Brand reputation is defined as the judgment generally assumed by the consumers about its quality and reliability. It is established by the product or service performance and quality, through advertising as well as public relations (Kim & Jones, 2009). Similarly, brand predictability means forecasting ability to guess other party's behavior (Doney & Cannon, 1997). Brand's predictability enriches the consumer confidence in

the brand regarding its quality and ease of use. Brand reputation and brand predictability differentiate such that the former is based the opinions of on others opinions while the latter develops as a result of purchase and usage experiences (Kim & Jones, 2009). The trust built from previous experiences of the customers with the retailers in brick and mortar stores (offline trust) is subject to the confidence in the customers to shop from their online stores as well (Hongyoun & Kim, 2009 Kwon & Lennon, 2009). If customers trust that the brand is reliable, they will develop positive purchase intentions for that brand. However, if the offline brand trust is lower, such relationship will become weaker. In customer-brand relationship, customer's perceptions of risks related with the particular brand will decline if they think of the brand being more predictable, trustworthy and consistent. So, for online shopping for the products of that brand, negative customer evaluations will diminish. (Hongyoun & Kim, 2009; Kwon & Lennon, 2009). For that purpose, to reduce the negative impact and to boost the OSI, offline brand trust plays a vital role. Hence, following hypothesis can be posited:

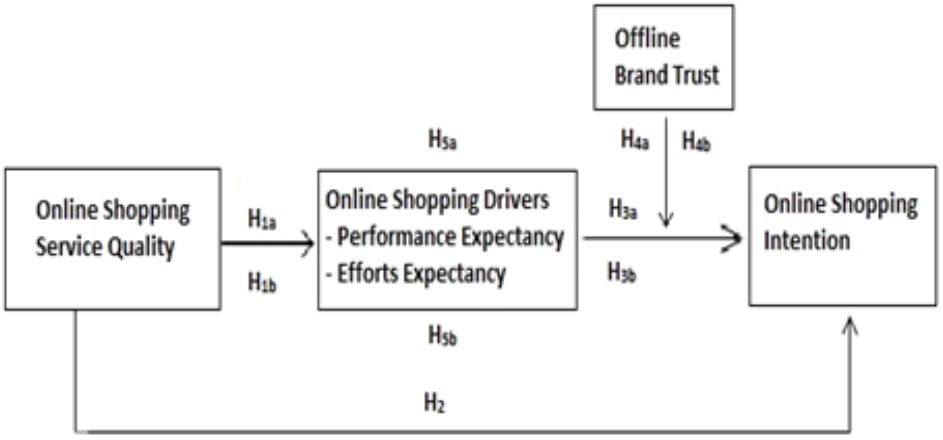
- **H_{4a}:** The influence of PE on OSI will be moderated by OBT such that, the effect will be stronger with high OBT.
- **H_{4b}:** The influence of EE on OSI will be moderated by OBT such that the effect will be stronger with high OBT.

2.5 Mediating role of Online Shopping Drivers (OSD)

The OSSQ is directly related to OSI, but in the presence of PE, where the customer also expects a higher level of performance, which will definitely increase due to the high service quality. The relationship between OSSQ and OSI will get stronger. Similarly, the relationship between the OSSQ and OSI also can be mediated by the EE for online shopping. The online customers assume that online shopping is requires relatively less effort. The online shopping atmosphere helps the customers to reduce their efforts to make decisions from the availability of a wide range of products in online stores; customer can also screen the information about products and also compare similar products of different brands in an online medium (Alba et al., 1997). A well designed webpage can be easily browsed through, saves time and cognitive efforts of the customers to shop effectively online (Szymanski & Hise, 2000). It is true for all customers but this relationship will be high especially for those who are considering the performance expectancy and efforts expectancy while shopping online. So, the PE and EE may act as good mediators between the Online OSSQ and OSI. On the basis of this, following hypothesis can be posited:

- **H_{5a}:** PE mediates between OSSQ and OSI.
- **H_{5b}:** EE mediates between OSSQ and OSI.

3. Conceptual Framework



We have added Online Shopping Service Quality as an "Exogenous Variable" and Offline Brand Trust as a "Moderation Variable". These two variables are new contribution in the frame of UTAUT. The online shopping drivers i.e. Performance Expectancy and Efforts Expectancy are used as a "mediators" in this framework between the Online Shopping Service Quality and Online Shopping Intention. The direct relationship between the Online Shopping Service Quality and Online Shopping has also been proposed.

4. Methodology

This section explains the research methodology adopted for this study. It elaborates the data collection process and how the data was analyzed to answer the research questions.

4.1 Sample and Procedure

The targeted population for this research study was university students of management sciences department (due to easy access and personal contact of the authors) across Pakistan who made online shopping. The student sample was chosen due to the reason that online customers are usually educated, young and they can be a better representative for the current research (Butt et al., 2016). Moreover, the data was time lagged, so the participants were easily available and could be traced out for different time lagged data collection during the semester. Past studies have also made use of time lagged data collection methods for the minimization of common method bias problems (Loi et al., 2014). Data was collected using personally administered questionnaires (Ansari et al., 2007; Paglis & Green, 2002). The reason for choosing a questionnaire survey was that the prior studies have used a similar method means for data collection (Adnan, 2014; Almousa, 2011; Masoud, 2013; Moshrefjavadi et al., 2012; Osman et al., 2010; Suwunniponth, 2014).

For the purpose of approaching the participants, the authors of this research contacted the class representatives from different universities of Pakistan and clarified the aim of the research to them and provided all the necessary information regarding the data collection.

Furthermore, the students were also told that the data collection will occur in four time lags from the same participants. A covering letter was attached that addressed that voluntary responses and their confidentiality. Apart from that, the covering letter also included that the authors of this research had not known any of the respondents and that the participants are requested to read the instructions as well as the statement of confidentiality. The statement of confidentiality stated that, 'Please take some time to complete this questionnaire. Your response shall be anonymous and reported in aggregate. There are no correct/incorrect answers, so your openness while answering these questions is strongly encouraged.

Accordingly, the class representatives approached the students of different universities randomly from chosen class and asked them to fill in the survey questionnaire. The demographic profile was included in the last part of the survey questionnaire. After disposing off the incomplete questionnaires, the final sample consisted of 167 responses out of 400 surveys (42% response rate).The sample characteristics are shown in Table 1.

Table 1: Demographic Profile

Characteristics	Percentage
Gender	
Male	67.1
Female	32.9
Age	
Less than 20 Years	8.4
Between 20-30 Years	75.4
Between 31-40 Years	16.2
Education	
Under Grad	28.1
MS/ M. Phil	69.4
Ph.D.	2.5
Online Shopping Experience	
Less than 06 months	48.5
More than 06 months but less than 1 Year	28.1
More than 1 Year but less than 2 Years	10.2
2 Years and above	13.2
Income	
Less than 25K	57.9
Between 25K – 50K	28.2
More than 50K	13.9
Cities Covered (with number of Questionnaires)	
Islamabad	34
Rawalpindi	30
Lahore	16
Multan	34
Quetta	19
Karachi	15
Peshawar	19

4.2 Measures

The questionnaire was designed in English language. All the items included in the questionnaire were measured on a 5 point Likert-type scale, where 1 was coded as "Strongly Disagree" and 5 was coded as "Strongly Agree".

4.2.1 Online Shopping Service Quality (OSSQ)

The OSSQ has been measured with five different dimensions i.e. website design, responsiveness, reliability, trustworthiness and communication. Lee and Lin (2005) used three dimensions namely website design, reliability and responsiveness, which are aligned with this research and hence have been adopted. The reported α reliabilities were 0.77, 0.85 and 0.80 for website design, e-retailer's reliability and responsiveness respectively. The sample items are "The online website is visually appealing", "The online store delivers on its undertaking to do certain things by certain time" and "I think the online store gives prompt service". For trustworthiness and communication, the scale was adopted from Cai & Jun, (2003). The sample items are "I can trust the Internet retailer" and "The online shopping web sites show addresses, phone numbers, fax numbers and e-mail addresses". The reported α reliabilities were 0.87 and 0.78 for trustworthiness and communication respectively.

4.2.2 Performance Expectancy (PE)

This scale was originally developed by Venkatesh et al. (2003). This scale was also used by Tandon et al. (2016) with some amendments. For this study, the authors combined the both to enhance the understanding of the respondents. The sample items are "Online shopping is useful in my daily life" and "I can find some products online that are not available in physical stores". The analysis reported α reliability of 0.88.

4.2.3 Efforts Expectancy (EE).

This scale was originally developed by Venkatesh et al. (2003). This scale was also used by Tandon et al. (2016) with some amendments. For this study, the authors combine the same to enhance the understanding of respondents. The sample items are "It is easy to learn how to shop online" and "I find online shopping easy to use". The reported α reliability was 0.78.

4.2.4 Offline Brand Trust (OBT)

The offline brand trust has been measured with two dimensions i.e. brand reputation and brand predictability. There is also a third dimension which is "brand competence". This dimension is related with specific brands. Since this study was conducted catering to brands in general and not specifically targeting at any brand, so it was omitted in the final questionnaire. The scale was adapted from Lau and Lee (1999) and the reported α reliability was 0.91 and 0.87 for brand predictability and brand reputation respectively. The sample items are "Brand has reputation to perform well" and "I can always anticipate correctly how brand will perform".

4.2.5 Online Shopping Intention (OSI)

This scale was originally developed by Davis, Bagozzi & Warshaw (1989). This scale has also been used by Venkatesh et al. (2003). The same has been adapted with some amendments to make it more meaningful context for this study. The sample items are "I intend to use online shopping in the next few months" and "I plan to use online shopping in the next few months". The reported α reliability of scale was 0.82.

4.3 Control Variables

Following the practice of previous studies (Ashraf, Thongpapanl, Menguc & Northey, 2017; Davis, 1989; Gefen & Straub 1997; Igbaria & Parasuraman, 1989; Venkatsh & Agarwal 2006; Venkatesh & Morris, 2000; Venkatesh & Zhang, 2010), the authors controlled several factors in this study (i.e. gender, age, education, income and previous experience in online shopping) that have been shown to be related in our study variables.

5. Results

5.1 Descriptive Statistics and Correlation

Table 2 shows the descriptive statistics, bivariate correlations and the alpha reliabilities. Online Shopping Service Quality is significantly correlated with Performance Expectancy ($r = 0.50$ and $p < .01$), Efforts Expectancy ($r = 0.50$ and $p < .01$), Offline Brand Trust ($r = 0.25$ and $p < .01$), Online Shopping Intention ($r = 0.36$ and $p < .01$) and all relationship are in the expected directions. Performance Expectancy has a significant correlation with Efforts Expectancy ($r = 0.59$ and $p < .01$), Offline Brand Trust($r = 0.24$ and $p < .01$) and Online Shopping Intention($r = 0.41$ and $p < .01$). Efforts Expectancy has a significant correlation with Offline Brand Trust($r = 0.16$, $p < .01$) and Online Shopping Intention ($r = 0.35$ and $p < .01$). The Offline Brand Trust is significantly correlated with Online Shopping Intention ($r = 0.35$ and $p < .01$).

Table 2: Means, S.D., Coefficient A Reliabilities, and Inter Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	0.33	0.47	--									
2. Age	2.10	0.56	-0.13									
3. Education	2.02	0.79	-0.03	0.46								
4. Experience	2.16	1.34	0.06	.18*	0.2**							
5. Income	2.12	1.14	-.04	0.37**	0.48**	0.22**						
6. OSSQ	3.27	0.49	0.6	-0.007	-0.08	0.017	-0.09	(0.80)				
7. PE	3.40	0.84	0.06	-0.18*	-0.08	0.07	-0.04	0.5**	(0.77)			
8. EE	3.60	0.72	0.06	-0.023	-0.064	0.14	-0.078	0.50**	0.59**	(0.71)		
9. OBT	3.40	0.54	0.08	0.25**	0.172*	0.15	0.15	0.25**	0.24	0.16*	(0.76)	
10. OSI	3.45	0.82	0.002	0.09	0.012	0.14	0.035	0.36**	0.41**	0.35**	0.35*	(0.83)

5.2 Measurement Model

Common method variance is a serious issue in data analysis and if it arises, it raises a lot of questions on the reliability of the data, so for that reason, the authors used the Harman single factor analysis. The analysis showed a one factor solution showing only 21.35% variance. It indicated that common method bias is not a problem for the data used in this study (Woszczynski & Whitman, 2004; Podsakoff & Organ, 1986). This result enabled us to proceed with the evaluation of the measurement and structural model. Structural equation modeling (SEM) was performed to evaluate the measurement model and for that, confirmatory factor analysis used to justify measurement model of this study (Anderson & Gerbing, 1988). The model had five latent variables i.e. Online Shopping Service Quality, Performance Expectation, Efforts Expectations, Offline Brand Image and Online Shopping Intention. The model fit of this study was evaluated through different fit indices i.e. model χ^2, comparative fit index (CFI), Tucker Lewis Index (TLI), incremental fit index (IFI) and root mean square error of approximation (RMSEA) measures. The measurement model assessment concluded an exceptional fit to the data i.e. χ^2/df = 1.23; CFI = 0.96; IFI = 0.96; RMSEA = 0.04; TLI = 0.95 (Steiger, 1990; Hinkin, 1998) in Table 3. The measurement model estimation showed that all measures had an acceptable discriminant validity.

Table 3: Measurement Model

Model	**χ^2**	**df**	**RMSEA**	**IFI**	**TLI**	**CFI**
Baseline model	1.23	169	0.04	0.96	0.95	0.96

RMSEA = root mean square error of approximation; CFI = comparative fit index; IFI = incremental fit index; TLI = Tucker Lewis index

5.3 Results of the Hypotheses Testing

5.3.1 Structure Model

After establishing the discriminant validity, hypothesis testing was carried out. Hypothesis 1a stated that Online Shopping Service Quality (OSSQ) positively affected Performance Expectancy (PE). In order to study the direct effect of OSSQ on PE, the authors examined model 1. The results supported the hypothesis with ($\beta = 0.49$ and $p < .01$). The testing of model 2 showed that OSSQ positively affected Efforts Expectancy (EE) and the hypothesis 1b was supported by the results i.e. ($\beta = 0.52$ and $p < .01$). The hypothesis 2 stated that OSSQ is directly linked with Online Shopping Intention (OSI), the resulted support the hypothesis ($\beta = 0.36$ and $p < .01$). Similarly, hypothesis 3a which stated that PE is positively related with OSI and hypothesis 3b which stated that EE is positively associated with OSI are also accepted at significance level ($\beta = 0.20$ and $p < .05$) and ($\beta = 0.10$ and $p < .05$) respectively. The results are shown in table 4.

Table 4: Structure Model Analysis

Structural path	Path Coefficients
Online Shopping Service Quality-> Performance Expectancy	0.49**
Online Shopping Service Quality-> Efforts Expectancy	0.52**
Online Shopping Service Quality-> Online Shopping Intention	0.36**
Performance Expectancy -> Online Shopping Intention	0.20*
Efforts Expectancy -> Online Shopping Intention	0.10*
Performance Expectancy x Offline Brand Trust -> Online Shopping Intention	-0.089
Efforts Expectancy x Offline Brand Trust -> Online Shopping Intention	0.11

Note: *p < .05, **p < .01, ***p < .001

5.3.2 Moderation Analysis

Hypothesis 4a explained the moderation effect of Offline Brand Trust (OBT) between PE and OSI, the analysis of the results yielded an insignificant result, thus, rejecting the hypothesis i.e. (β = -0.08 and p >.05). Similarly, hypothesis 4b explained the moderation effect of OBT between EE and OSI which was also rejected as the values of interaction effects were insignificant (β = 0.11, p >.05). These relationships are shown in table 5.

Table 5: Moderation Analysis

Structural path	Path coefficients
Performance Expectancy -> Online Shopping Intention	0.20*
Efforts Expectancy -> Online Shopping Intention	0.10*
Performance Expectancy x Offline Brand Trust -> Online Shopping Intention	-0.089
Efforts Expectancy x Offline Brand Trust -> Online Shopping Intention	0.11

5.3.3 Mediation Analysis

To test hypothesis 5a, the authors analyzed the mediating role of PE between QSSQ and OSI using bootstrapping at 95% confidence interval. The indirect effect was significant, yielded a beta value i.e. (β = .26 and p < .01), with the confidence interval lying between 0.08 and 0.45. Thus, the analysis of the results resulted in the support for hypothesis 5a with partial mediation.

Similarly, in hypothesis 5b, the authors evaluated the indirect effect of OSSQ and OSI through EE. Bootstrapping was done at 5000 with the confidence interval of 95%. The results of the analysis revealed a significant partial mediation i.e. (β = .31 and p < .01) with the confidence interval lying between 0.14 and 0.48. Therefore, Hypothesis 5b was supported. The relationships are exhibited in table 6.

Table 6: Mediation Analysis

Path Coefficient	BC (95% CI)	Bootstrapping
Online Shopping Service Quality->Performance Expectancy-> Online Shopping Intention	0.26**	(0.08, 0.45)
Online Shopping Service Quality->Efforts Expectancy-> Online Shopping Intention	0.31**	(0.14, 0.48)

Note: CI = confidence interval. *p < .05, **p < .01, ***p < .001; BC = bias corrected; 5,000 bootstrap samples.

The hypothesized model is shown in figure 2 below shows all the values of path coefficients.

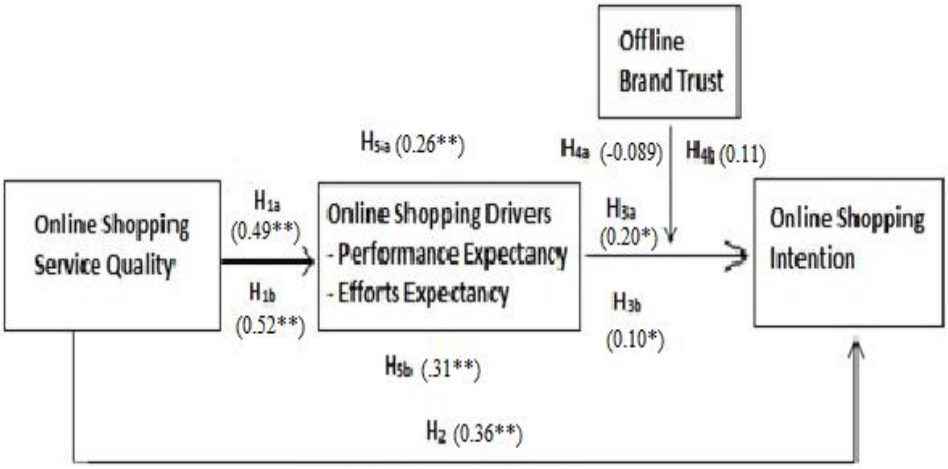


Fig 2: Hypothesized Model

6. Discussion

This study has examined the impact of online shopping service quality on online shopping drivers and online shopping intention. In the light of the literature review, these relationships have not been empirically tested before. The authors checked the moderating effect of offline brand trust between the relationship of online shopping drivers and online shopping intention. The authors also explored the mediating role of online shopping drivers in the relationship of online shopping service quality and online shopping intention.

Our findings indicated that there is a positive relationship between the online shopping service quality and online shopping drivers i.e. performance expectancy and efforts expectancy. The online environment facilitates the customers such that they need to exert lees efforts, vast variety available for selection, product reliability and product comparison on the same website or across different websites (Alba et al., 1997).

According to Orel and Kara (2014), the rapid advancement in technology has pushed the retailers to deliver high quality services to the customers. Many researchers have argued that service quality is critical for the' long-term success of the online retailer (Fassnacht & Koese, 2006; Zeithaml et al., 2002). The results of this research are aligned with the studies of Yang (2001) and Zeithmal et al. (2002) which revealed that business success in e-commerce industry does not depend merely on the web site existence and low price, but also on the e-service quality. It means that service quality in online shopping is a source which stimulates a drive to do online shopping as it will enhance the performance and efforts expectations of online shoppers. Santos (2003) showed that the service quality depends on overall customer judgments and perception regarding the superiority and quality of the online services in the cybernetic market. So, it can be established from this statement that if customers evaluate that the service quality is good for online shopping; their performance and effort related expectations will be set accordingly. Cai and Jun (2003) opinionated that service quality is widely accepted as one of the key determinants of online retailer's success. Website design has been deemed as important in determining customer perceptions and for the purpose, retailor incorporate an arousing and equally pleasing web layout for the purpose of triggering online shopping to save the customers from exerting efforts and energy during online shopping (Yoon et al., 2013) and can save time while shopping online (Tandon et al., 2015). Online services enable a customer to compare the prices of the products online and their features easily (Santos, 2003). Wolfinbarger and Gilly (2003) furthered that online shopping is not only convenient, but it also gives the customer the authority and control because of its convenience. Our findings are aligned with Koufaris and Hampton-Sosa (2002), as their research verified a constructive relationship of perceived usefulness, perceived control and perceived ease of use of a web site. So, online customers are very likely to make more online purchases if they find the company's website easy and safe to use.

The online shopping service quality has a direct and significance impact on online shopping intention. The previous researches have also demonstrated that service quality influences the customer's consumption/purchase on online shopping websites (Wolfinbarger & Gilly, 2003; Yang & Jun, 2002). The complicated process of online shopping is sub-divided into navigation, information search, making product comparisons, online transactions, and consumer interactions. It is impossible for a customer to evaluate all the sub processes comprehensively in a single online website visit. Rather, he perceives and evaluates the service quality and its outcome as a whole (Van-Riel et al., 2001). For that purpose, the customer expectations for online retailing services exceed the traditional brick and mortar retailing services. They anticipate high quality services that are equivalent to, or exceed the traditional channels customers. Previous studies have also advocated that customer's perception of service quality positively affects the purchase intentions of the customer. Rust and Zahorik (1993), in this context, said that overall service quality significantly influences customer retention, market share, and profitability. If the service quality is not up to the mark, issues in the access of the retailer websites, longer page downloading, for example the monotonous webpage layout and web navigation, website crowding, the sluggish transactional speed and complicated online purchase procedures impede the online retail patronage intentions (Lim & Dubinsky, 2004).

The results also indicated that online shopping drivers significantly affect online shopping intention. The performance expectancy and effort expectancy appeared as important drivers of behavioral intentions and these findings are aligned with the previous literature (Foon & Fah, 2011; Sareen & Jain 2014; Yaprakli et al., 2013; Zhou et al., 2010). Performance expectancy and effort expectancy have been proved to be strong factors to influence online shopping (Yaprakli et al., 2013). Hassle-free, time saving, bargain dealing, round-the-clock availability, broad category of products are utilitarian values for the consumers which significantly affect online purchase intentions (Celik, 2011; Venkatesh et al., 2012; Zhou et al., 2007) testified the relationship between EE and BI in a consumer context. Ghalandari (2012), while studying consumer behavior in online banking, identified that PE and EE affect users' behavior in e-banking services. Sareen and Jain (2014) confirmed a positive relationship of EE on behavioral intention to buy. Moreover, Rehman et al. (2019) finding are also aligned with the finding of this research that perceived usefulness (performance expectancy), perceived ease of use (Perceived ease of use) have a positive and significant influence on purchase intention of consumers. Apart from that, Im et al. (2011) tested the links among the constructs in UTAUT models on the consumers of the United States and Korea, proved that the influence of PE and EE is greater in U.S.A. However, according to the results of this research, the relationship between OSD and OSI is not moderated by OBT. Prior studies have indicated the influence of trust on behavioral intentions (Shankar et al., 2002; Yoon, 2002). However, in this study, the moderation was not supported in a Pakistani context. Trust has been proved to affect the risk perception and attitude which consumer's attitude and risk perception, which increases the customer's willingness to indulge in an online purchase (Jarvenpaa et al., 2000). However, the importance of brand trust in developing customer trust may differ according to the product category. Brand trust is comparatively more critical for categories that offer high financial value, for example, automobile retail websites and financial services webpages, and offline brand trust is a very important determinant for categories that offer high financial risk (Bart et al., 2005). As in this study the data was collected from students, since the purchasing power of a student is low and they usually purchase low value products. Hence, the offline brand trust is not moderating the relationship. However, it is expected that offline brand image must be influential for high value products.

The results further indicated that online shopping drivers mediate the relationship of OSSQ and OSI. The online shopping services quality has a direct and significant relationship with online shopping intention. However, in the presence of performance expectancy and efforts expectancy, when the customer is also expecting a higher performance and effort free activity the relationship between OSSQ and OSI became stronger.

7. Implications

7.1 Theoretical Implications

This research increasingly contemplates to extend the core assumptions of UTUAT given by the Venkatesh et al. (2003), by including a new exogenous variable and mediating mechanism to explain online shopping adoption behaviors. The new

exogenous mechanism is the inclusion of Online Shopping Service Quality in this theory for the first time. This relationship has been found significant. Secondly, in this research the authors also found that the relationship between the online shopping service quality and online shopping intention is being mediated by the online shopping drivers, which was found significance. Third, the authors also tried to measure the moderating effect of offline brand trust effect in the relationship between online shopping drivers and online shopping intention, however, this effect was not significant. These additions are in line with the recommendations of Venkatesh et al. (2016).

7.2 Managerial Implications

The results of this research offer expedient implications for e- retailors in Pakistan. A profound recognition and understanding of the concepts used in this research is very crucial for the e-retailers. Online retailers need to improve service quality of their website to increase behavioral intention. Online Shopping Service Quality has developed as an important determinant of online shopping. This highlights a need to create user friendly websites with striking and effervescent web pages that are easy to use.

By examining the service quality, online retailers should develop a better understanding of the needs and wants of their customers. Hence, online retailers may develop effective online retailing strategies to acquire a competitive advantage and thrive in the virtual e-business. The results of this research also suggest that online shopping drivers are also very critical. The strong relationship between OSD and OSI imply that online retailers must meet the performance and efforts expectations of the online shoppers. The online portal should be easy to use and must enhance the performance of online shoppers.

8. Limitation and Future Research Directions

Considering the apparent limitations of any research is vital for improvement in the future. For the current research, future studies can make use of robust mixed method methodologies, longitudinal research and interviews could be conducted for an in-depth analysis using focus groups and consumers. Apart from that, experimental studies could be conducted with manipulation checks and multi-group data could be analyzed and interpreted to study the varying consumption pattern and decisions among based on different demographic and psychographic profiles to examine the relationship between service quality and customer buying behavior during online shopping. Secondly, future studies could identify and incorporate other antecedents of online shopping under the umbrella of UTAUT such as electronic word of mouth, online brand trust as a moderator and/or customer citizenship behavior as an outcome behavior. Finally, this research focused on online shopping as general without limiting to a specific product category in online Pakistani market. The buying intentions vary across product categories and therefore there is a need to conduct a research on purchase behavior of a specific product.

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